# **BSc IT Department**

# **Grow with Google (Short Term Course)**

#### Syllabus Academic Year 2022-23

### 1. Data Analytics:

- a. Foundations: Data, Data, Everywhere
- b. Ask Questions to Make Data-Driven Decisions
- c. Prepare Data for Exploration
- d. Process Data from Dirty to Clean
- e. Analyze Data to Answer Questions
- f. Share Data Through the Art of Visualization
- g. Data Analysis with R Programming
- h. Google Data Analytics
- i. Capstone: Complete a Case Study

# 2. IT Support:

- a. Technical support fundamentals
- b. The bits and bytes of computer networking
- c. Operating systems and you: Becoming a Power user
- d. System administration and IT infrastructure services
- e. IT security: Defense against the digital dark arts

# 3. Project Management:

- a. Foundations of Project Management
- b. Project initiation: Starting a successful project
- c. Project planning: Putting it all together
- d. Project execution: Running the project
- e. Agile project management
- f. Capstone: Applying project management in the real world

#### 4. UX Design:

- a. Foundations of user experience (UX) design
- b. Start the UX design process:Empathize, Define and Ideate
- c. Build wireframes and low-fidelity prototypes
- d. Conduct UX research and test early concepts
- e. Create high-fidelity designs and prototypes in Figma
- f. Build dynamic user interfaces (UI) for websites
- g. Design a user experience for social good & prepare for jobs

## 5. IT Automation with Python:

- a. Crash Course on Python
- b. Using Python to Interact with the Operating System
- c. Introduction to Git and GitHub
- d. Troubleshooting and Debugging Techniques
- e. Configuration Management and the Cloud
- f. Automating Real-World Tasks with Python

Ms. Bhavini Shah Course Co-ordinator